

## **REMARKS**

### **I. INTRODUCTION**

Claims 1, 14, and 20 have been amended. Thus, claims 1-7, 9, 12-14, and 16-20 remain pending in the present application. No new matter has been added. In light of the above amendments and the following remarks, Applicants respectfully submit that all presently pending claims are in condition for allowance.

The Applicants respectfully request that the Examiner enter the above amendments because the only amendments that have been submitted are those suggested by the Examiner. Thus, it appears the Examiner has already examined the claims as if they included the subject amendments.

### **II. THE CLAIM OBJECTIONS SHOULD BE WITHDRAWN**

Claims 1, 14, and 20 stand rejected for informalities. Specifically, the Examiner suggests that the term “enables” should be amended to “encourages.” Also, the Examiner states that the recitation of adjusting “the tempo of a selected audio signal” is unclear because it is unclear if a new signal is “selected to ‘adjust’ the initial audio signal, or if a single audio signal is selected and adjusted to encourage a certain exercise performance.” (See 1/6/2010 Office Action, p. 2). Applicants respectfully submit that the latter of the Examiner’s interpretations is the correct interpretation. Step 2 of claim 1 selects an audio signal and step 3 adjusts the tempo of the audio signal selected in step 2. The Applicants respectfully submit that this interpretation is supported by the Specification at least in paragraph [0034] of the published application. In view of this and the amendments to the claims, Applicants respectfully request the withdrawal of these objections.

### **III. THE 35 U.S.C. § 102(e) REJECTION SHOULD BE WITHDRAWN**

Claims 1-7, 9, 12, 14, and 16-20 stand rejected under 35 U.S.C. § 102(e) as anticipated by McKinney et al. (U.S. Patent No. 7,518,054).

Claim 1 recites “[a]n audio pacing device, comprising: a sensing unit to obtain a parameter of a user in physical exercise; a memory to store a plurality of audio signals having predetermined tempo values; and a processing unit configured to (1) determine whether intensity of the parameter of the user should be increased, decreased or maintained by using the parameter of the user from the sensing unit and a predetermined reference value, (2) select an audio signal having a tempo that encourages the user to increase, decrease or maintain the intensity, (3) *adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value*, and (4) *determine the predetermined tempo values of the plurality of audio signals, wherein the plurality of audio signals are categorized based on their predetermined tempo values.*”

McKinney discloses an audio reproduction apparatus (100) for sports training purposes which includes a tempo derivation unit (103) for deriving a selected tempo T. (See McKinney, col. 4, ll. 46-47). The derivation unit (103) derives the selected tempo T based on data signals (d1, d2, d3), which can be pace, acceleration, deformation, heart rate, etc. (See Id., col. 4, l. 46 – col. 5, l. 7). Alternatively, McKinney discloses that a user can choose the selected tempo. (See Id., col. 5, ll. 22-24). The output tempo (TO), i.e. the tempo heard by the user, is outputted “within a predefined deviation d from the selected tempo T.” (See Id., col. 5, ll. 39-40). So, the played audio signal is within a predefined deviation of the selected tempo. In contrast, claim 1 recites “*a plurality of audio signals having predetermined tempo values*” and “*adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value.*” So, according to claim 1, each audio signal has a tempo value and that tempo value is adjusted up to a predetermined percentage of the tempo value of the audio signal, not the desired (selected) tempo value as taught by McKinney.

Furthermore, McKinney explicitly discloses that the audio reproduction apparatus (100) “is only arranged to select input audio of substantially the desired tempo and *is not arranged to change the tempo of a selected piece of audio.*” (See Id., col. 6, ll. 20-23). Subsequently, McKinney states that a song can be processed to obtain 10 versions, each with a different tempo, “e.g. on a p.c. -, which are then downloaded into the audio source

120 of e.g. a portable solid state MP3 or CD player.” (See Id., col. 5, ll. 23-26).

Therefore, Applicants respectfully submit that McKinney fails to disclose or suggest adjusting “*the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value*,” as recited in claim 1 and that claim 1 is allowable. Because claims 2-7, 9, and 12 depend on and, therefore, contain all of the limitations of claim 1, it is respectfully submitted that these claims are also allowable over McKinney.

Claim 14 recites, “adjusting the tempo of a selected audio signal up to a predetermined percentage of the tempo.” Therefore, Applicants respectfully submit that claim 14 and its dependent claims 16-19 are allowable for at least the same reasons previously presented with regard to claim 1.

Claim 20 recites, “adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value.” Therefore, Applicants respectfully submit that claim 20 is allowable for at least the same reasons previously presented with regard to claim 1.

#### **IV. THE 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN**

Claim 13 stands rejected under 35 U.S.C. § 103(a) as obvious over McKinney. Claims 1, 3, 4, 6, 7, 9, 11, 12, 14, and 16-20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Lee et al. (U.S. Patent No. 6,837,827) in view of Kiiskinen et al. (U.S. Published App. No. 2006/0112808) and further in view of Lauffer et al. (U.S. Patent No. 5,215,469).<sup>1</sup> Claims 5 and 13 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Lee in view of Kiiskinen and Lauffer and further in view of Richardson et al. (U.S. Patent No. 6,135,951).

Lee describes a personal training device adapted to assist a user in reaching performance goals. (See Lee Abstract). However, this disclosure does not meet the recitation that the claimed audio pacing device determines *the predetermined tempo*

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<sup>1</sup> The Examiner does not include claims 14 and 16-19 in this rejection but includes them in the explanations. Applicants will consider these claims as rejected as well.

*values of the plurality of audio signals.* Increasing the frequency of the audible cue does not equate to determining the actual tempo value of the audible cue. For example, in the claimed invention, if an audio signal has a tempo of 5, the audio pacing device determines that value. In contrast, Lee fails to disclose or suggest that the device (10) is what determines the frequency of the audible cues. In fact, Lee is silent as to what determines the frequency. Usually, as is known in the art, an audio signal is provided to the device with its tempo value. Accordingly, Lee fails to disclose or suggest an audio pacing device determining “*the predetermined tempo values of the plurality of audio signals,*” as recited in claim 1.

To cure the deficiencies of Lee, the Examiner relies on Kiiskinen. However, Kiiskinen a media data format used with audio devices (10). The audio device comprises a reading means (11), selection means (13), and storage means (12). (See Kiiskinen, ¶ [0045]). The reading means (11) reads “a media data format comprising music data defining a music track and metadata defining metadata associated with the music track.” (See *Id.*). Kiiskinen discloses that the metadata is defined by the ID3v2 tagging system which “identifies several different metadata types associated with a music track comprised in an MP3 file.” (See *Id.*). In addition, each MP3 stored on the storage means (12) includes a tempo class value between 1-10 (1 being the lowest tempo range and 10 being the highest tempo range). (See *Id.*, ¶ [0046]). So, the MP3’s that are stored on the storage means (12) already have a tempo class value. In contrast, claim 1 recites an audio pacing device determining “*the predetermined tempo values of the plurality of audio signals.*” Kiiskinen fails to disclose or suggest that the device (10) determines the tempo class value, but rather that the MP3 is provided to the storage means (12) in the device (10) with a tempo class value.

Applicants respectfully submit that McKinney, Lauffer, and Richardson fail to cure these deficiencies and that Kiiskinen, Lee, McKinney, Lauffer, and Richardson, taken alone or in any combination, fail to disclose or suggest an audio pacing device determining “*the predetermined tempo values of the plurality of audio signals,*” as recited

in claim 1. Therefore, it is respectfully submitted that claim 1 and its dependent claims 3, 4, 5, 6, 7, 9, 11, 12, and 13 are allowable.

Claim 14 recites, “*determining, by an audio pacing device, the predetermined tempo values of the plurality of audio signals.*” Therefore, Applicants respectfully submit that claim 14 and its dependent claims 16-19 are allowable for at least the same reasons previously presented with regard to claim 1.

Claim 20 also recites, “*determine the predetermined tempo values of the plurality of audio signals.*” Thus, it is respectfully submitted that claim 20 is also allowable for at least the foregoing reasons presented with regards to claim 1.

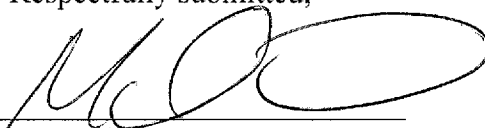
**CONCLUSION**

In light of the foregoing, Applicants respectfully submit that all of the presently pending claims are in condition for allowance. All issues raised by the Examiner having been addressed. An early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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By: \_\_\_\_\_

  
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